

NOTES ON *BOCHUS*-GROUP SPECIES OF THE GENUS *JAMIDES*  
HÜBNER IN THE SANTA CRUZ ISLANDS (SOLOMON ISLANDS),  
WITH DESCRIPTION OF A NEW SUBSPECIES OF *JAMIDES*  
*AMARAUGE* DRUCE (LEPIDOPTERA: LYCAENIDAE)

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### Abstract

*Jamides amarauge hepworthi* subsp. nov., representing a significant easterly extension of the previously known distribution of *J. amarauge* Druce, is described from the Santa Cruz islands of Nendo and Vanikoro (Solomon Islands, Temotu Province). *J. goodenovii* Butler and *J. morphoides* Butler are recorded for the first time from the Solomon Islands. Difficulty in allocating material to species in the *bochus* Stoll species-group is briefly discussed.

### Introduction

The type species of *Jamides* Hübner is *J. bochus* (Stoll). The *bochus*-group contains a number of small but visually spectacular species, similar in appearance, characterised in the male by iridescent blue or purple uppersides and dull brown undersides with the usual polyommata arrangement of fine transverse lines. Females are usually dull in comparison, with the upperside iridescent blue less shining and reduced in extent.

*Jamides bochus* has a wide Indo-Oriental distribution, from India to Micronesia (Hirowatari 1992). From India to the Moluccas it is the only described species of this group to occur. Three species of the *bochus*-group are recorded from New Guinea and the Bismarck and Solomons archipelagos (Parsons 1998) but further east the *bochus*-group becomes more complex. In the New Hebrides archipelago (Vanuatu) and the Pacific islands (Rarotonga, Cook Islands, Fiji) some 17 names have been applied to *bochus*-group taxa, and in Vanuatu taxonomic assessment of species is hampered by a lack of available material. Hirowatari (1992) recognised 12 species of the *bochus*-group and suggested some synonymy.

Of the *bochus*-group, *J. cephion* Druce (TL [type locality]: Guadalcanal), *J. soemias* Druce (TL: Malaita) and *J. amarauge* Druce (TL: Alu [Shortlands]) are widespread throughout the Solomons archipelago. The remote Santa Cruz group of islands are politically part of the Solomon Islands, although they lie some 400 km east of the Solomons archipelago and have some geographical and faunistic association with the New Hebrides archipelago (*i.e.* Vanuatu) to the south. Aside from the common and widespread *J. celeno* (Cramer) (not part of the *bochus*-group), *J. cephion* was the only *Jamides* species recorded from the Santa Cruz Islands by Samson (1979, 1980), who reported a pair taken on Utupua by Hollins in 1956 (Samson 1979). The male of this pair is almost certainly not *J. cephion* and is similar in all respects to *J. morphoides* Butler (TL: Vanuatu: Montague Island).

The present author observed a *Jamides* species, assumed to be *J. cephion*, quite commonly on the main Santa Cruz island of Nendo, in October 1997 but, on a subsequent visit from March to July 2000, noted a number of apparently different *bochus*-group species. In view of potential confusion within the group, priority was given to collecting *Jamides* specimens on islands where they were observed. It became clear that this material included species not previously recorded from the Santa Cruz Islands, as well as undescribed taxa. It proved difficult, if not impossible, to allocate all specimens collected to species or even in some cases to associate females with the correct males with any degree of certainty.

Without doubt, four *bochus*-group species were present: *J. amaraugae* (see below), *J. cephion*, *J. morphoides* and *J. goodenovii* Butler (TL: Vanuatu: Espiritu Santo). Of these, *J. amaraugae* was previously unknown east of the Solomons archipelago (San Cristobal) and both *J. morphoides* and *J. goodenovii* were not previously known from localities outside Vanuatu. Although it is believed that accumulated material probably includes further undescribed taxa, practical difficulties in separation preclude their description (with the exception of a new subspecies of *J. amaraugae*) pending a thorough revision. All material collected has been deposited in The Natural History Museum (BMNH), London.

*Jamides amaraugae hepworthi* subsp. nov.

(Figs 1-4)

*Types.* *Holotype* ♂, SOLOMON ISLANDS: Santa Cruz group, Vanikoro, main island, Lale village, SL, 10.iv.2000, W.J. Tennent (gen. prep. BMNH(V) 5978) (BMNH). *Paratypes*: 2 ♂♂, same data as holotype; 2 ♂♂, same locality, 7.iv.2000; 1 ♂; 2 ♀♀, Nendo Island, Late to Luesalo (Graciosa Bay), SL, 4.v.2000, W.J. Tennent (♂ gen. prep. BMNH(V) 5977); 1 ♀, Nendo, Late to Noipe, 60-140 m, 9.v.2000, W.J. Tennent (all BMNH).

*Description.* Male (Figs 1-2) forewing length 12 mm; upperside superficially similar to nominotypical *J. a. amaraugae* (Solomons archipelago); forewing basal half shining blue-green (*J. a. amaraugae* blue with less green, slightly more extensive); borders dark brown, broad; hindwing basal two-thirds shining blue-green; marginal and submarginal markings largely obscured in most specimens, making border appear broader and darker (some submarginal markings usually prominent in *J. a. amaraugae*); basal margin of this band more linear than in *J. a. amaraugae*; underside similar to *J. a. amaraugae*; lines less well defined (the male holotype of *J. a. amaraugae* is atypical in this respect); hindwing subternal spot smaller than in *J. a. amaraugae*, leaving surrounding orange area prominent. Genitalia as in *J. a. amaraugae*. The only male available from Nendo is larger and more green than males from Vanikoro. Female (Figs 3-4) similar to male, upperside colour less extensive than in male and pale gleaming blue; underside similar to male.

*Etymology.* This new taxon is named after Ross Hepworth, of Pigeon Island (Reef group), without whose marine skills and local knowledge, travel throughout the western Santa Cruz Islands in 2000 would have been virtually impossible.

*Distribution.* Santa Cruz group (Nendo and Vanikoro).



**Figs 1-4.** *Jamides amaraugae hepworthi* subsp. nov. (1-2) male holotype: (1) upperside, (2) underside; (3-4) female paratype: (3) upperside, (4) underside.

**Discussion**

Although *J. amaraugae* is part of the *bochus*-group of species, it is a distinctive butterfly, unlikely to be confused with other species of the group. Discovery of *J. amaraugae* in the Santa Cruz group extends the known range of this species by almost 600 km to the east (San Cristobal [Kira-Kira] to Vanikoro).

Judging from several hundred *Jamides* genitalia preparations in the BMNH, London, G. E. Tite, who revised several lycaenid genera in the early 1960s (Tite 1959, 1963, 1966) considered undertaking a review of *Jamides* but, with the exception of the *euchylas* Hübner complex (Tite 1960), this was not carried out. *Jamides* remains one of the most complicated groups in the Polyommataini and has never been revised systematically (Hirowatari 1992).



Structure of the male genitalia, of fundamental value in identification of many lycaenid butterflies, is of limited value in the *bochus*-group. In particular, the shape of the valva, diagnostic in some other groups, is variable in *J. bochus* and its allies, consisting of a broad structure with an open, rounded posterior indentation somewhat variable in size. Valvae may be similar in species which are otherwise quite different in phenotype.

As already indicated, the genus *Jamides* is complex in the islands of Vanuatu, south of the Santa Cruz group and is in need of revision. It is noted that *J. morphoides*, recorded here for the first time from the Santa Cruz group, may be synonymous with *J. pulcherrima* Butler (TL: Vanuatu: Tanna) (Hirowatari 1992).

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